



[1] **EC-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 09 ATEX 018X

[4] Equipment: Cable glands type A2 for non-armoured cables and type C for armoured cables

[5] Manufacturer: Hummel AG

[6] Address: Lise – Meitner – Strasse 2, D-79211 Denzlingen - Germany

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-A9011171

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2004 EN 60079-7: 2003

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2G Ex e II

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 12 May 2009 - Translation issued the 12 May 2009

Prepared
tm

Verified
Mirko Balaz

Approved
Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 09ATEX 018X**

[15] **Description of equipment**

The cable glands type A2 and C made in stainless steel (AISI 316), aluminium alloy (ASTM B 221/83), brass or nickel plated brass (TM 464) are designed for the type of protection increased safety Ex e II.

This cable glands are foreseen, in accordance with the type, for armoured cables or non armoured cables.

Cable gland type A2 are for non-armoured cable and type C are for armoured cable. Available thread size are NPT 1/2", 3/4", 1", 1.1/4", 1.1/2", 2" and 2.1/2".

All cable glands and their characteristics (size, connecting thread size, gasket and cable dimension, etc.) are clear identified by product code number.

The detailed description of the cable glands and their constructional characteristics are reported into manufacturer documents.

Degree of protection (EN 60529) : IP 54

Operating temperature range : -20 ÷ +80 °C

Warning label

None.

[16] **Report n. EX-A9011171**

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 27 of the EN 60079-0 standard.

Descriptive documents (prot. EX-A9011176)

| | | | | |
|---|------------|--------|-------|------------|
| - Technical file cable glands type A2 and C | (279 pag.) | Rev. 0 | dated | 11.05.2009 |
| - EC declaration of conformity (facsimile) | (1 pag.) | Rev. 0 | dated | 24.03.2009 |
| - Installation instruction | (3 pag.) | Rev. 0 | dated | 25.03.2009 |

One copy of all documents is kept in CESI files.

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[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 09ATEX 018X

[17] **Special conditions for safe use**

The cable glands in subject, when coupled with the enclosures shall be suitable sealed in order to maintain ingress protection rating (at least IP54) of the associated enclosures.

Cable glands with cap nut but without a strain-relief device are suitable only for use with permanently installed cables.

Cable glands type A2 and C are suitable for use within an operating temperature range of -20°C to +80°C.

[18] **Essential Health and Safety Requirements**

Covered by EN standards mentioned at page 1.